

# **Air Quality Permitting Statement of Basis**

November 11, 2006

Permit to Construct No. P-060059

FIBERGLASS SYSTEMS INC. KUNA, ID

Facility ID No. 001-00179

Prepared by:

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**FACILITY DRAFT** 

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# **Acronyms, Units, and Chemical Nomenclatures**

AFS AIRS Facility Subsystem

AIRS Aerometric Information Retrieval System

AQCR Air Quality Control Region

ASTM American Society for Testing and Materials

BACT Best Available Control Technology

CAA Clean Air Act

CFR Code of Federal Regulations

CO carbon monoxide

DEQ Department of Environmental Quality
EPA U.S. Environmental Protection Agency

HAPs Hazardous Air Pollutants

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with

the Idaho Administrative Procedures Act

km kilometer

lb/hr pound per hour

MACT Maximum Achievable Control Technology

MMBtu million British thermal units

NESHAP National Emission Standards for Hazardous Air Pollutants

NOx nitrogen oxides

PM<sub>10</sub> particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

PSD Prevention of Significant Deterioration

PTC permit to construct
PTE potential to emit

Rules Rules for the Control of Air Pollution in Idaho

SIC Standard Industrial Classification

SIP State Implementation Plan

T/yr tons per year

UTM Universal Transverse Mercator VOC volatile organic compound

#### 1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

#### 2. FACILITY DESCRIPTION

Fiberglass Systems manufactures of fiberglass reinforced plastic bathroom products.

#### 3. FACILITY / AREA CLASSIFICATION

The facility is defined as a major facility in accordance with IDAPA 58.01.01.008.10 for Tier I permitting purposes, because the facility has the potential to emit (PTE) HAP and VOC at over 25/10 and 100 T/yr, respectively. The facility is not a Prevention of Significant Deterioration (PSD) major source, because the potential to emit does not exceed the PSD threshold of 250 T/yr. The AIRS classification is "A", because potential emissions of HAPs exceed 10 for styrene and 25 T/yr for total HAPs.

The facility is located in Ada County, in Air Quality Control Region 64, and Zone 11. The area classification is attainment for  $PM_{10}$ , CO, and all federal and state criteria air pollutants.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at the facility. This required information is entered into the EPA AIRS database.

#### 4. SCOPE OF PERMITTING ACTION

This permitting action revises PTC No. P-000719 and No. P-050035, issued on May 17,2002 and September 19, 2006, respectively. This permitting action addresses applicable requirements under 40 CFR 63, Subpart WWWW, and comments submitted by third parties that contested the permits. This permitting action also revises the permit so that the permittee is treated as a new facility for 40 CFR 63 Subpart WWWW purposes.

#### 4.1 Application Chronology

May 17,2002 DEQ issued PTC No. P-000719 September 19, 2006 DEQ issued PTC No. P-050035

October 24, 2006 Permit contested.

## 5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action:

## 5.1 Equipment Listing

This proposed permitting action does not involve a change in equipment.

# 5.2 Emissions Inventory

The proposed project does not involve a change in emissions. No emission inventory was submitted, or developed.

# 5.3 Modeling

See the statement of basis for PTCs No. P-000719 and No. P-050035, issued May 17,2002 and September 19, 2006, respectively.

# 5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC
IDAPA 58.01.01.209.04Revisions to Permits to Construct
This rule establishes the requirements for permit revisions.
40 CFR 63, Subpart WWWWNational Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production
This subpart establishes national emissions standards for hazardous air pollutants (NESHAP) for reinforced plastic composites production. This subpart also establishes compliance options, operating requirements, and work practice requirements to demonstrate initial and continuous compliance with the hazardous air pollutants (HAP) emissions standards for open molding, polymer casting, mixing, and cleaning of equipment procedures used in reinforced plastic composites manufacture. The requirements of this subpart apply to this facility because the facility-wide HAP emissions of the facility exceed major source thresholds.
40 CFR 63.5785(a)Am I subject to this subpart?
The requirements of this subpart apply to this facility because the facility owns or operates a reinforced plastic composites production facility that is located at a major source of HAP emissions.
40 CFR 63.5787What if I also manufacture fiberglass boats or boat parts?
40 CFR 63.5787(a) applies because the source meets the applicability criteria in 40 CFR 63.5785, and i not subject to the Boat Manufacturing NESHAP (40 CFR part 63, subpart VVVV). The requirements of 40 CFR 63.5785(b) through (d) do not apply because the facility is not subject to the Boat Manufacturing NESHAP (40 CFR part 63, subpart VVVV).
40 CFR 63.5790What parts of my plant does this subpart cover?
In accordance with 40 CFR 63.5790(a), the facility is subject to this subpart because it is a new or existing facility. In accordance with 40 CFR 63.5790(b), the affected sources located at the facility are open molding, polymer casting, mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP- containing materials storage, and repair operations on parts the facility manufactures.
40 CFR 63.5795
In accordance with 40 CFR 63.5795(a), the facility is a new source because, although it began

construction before August 2, 2001, it is still under construction. The facility has agreed to be

This section is informational.

considered a new source under the regulations.

40 CFR 63.5797 ......How do I determine the organic HAP content of my resins and

gel coats?

In accordance with 40 CFR 63.5797, the permittee may rely on information provided by the material manufacturer, such as manufacturer's formulation data and material safety data sheets (MSDS), using the procedures specified in 40 CFR 63.5797(a) through (c).

This section does not apply to the permittee.

In accordance with 40 CFR 63.5799, the facility is a "new" facility, and must use the procedures in either paragraph (b)(1) or (2) of this section to calculate the facility's organic HAP emissions in tpy for purposes of determining which paragraphs in § 63.5805 apply to the facility.

In accordance with 40 CFR 63.5800, the permittee must comply with the standards in this subpart by the dates specified in Table 2 to this subpart. For an existing source, the date specified in Table 2 is April 21, 2006. Although the facility is considered a new facility, the facility is still subject to the April 21, 2006 compliance date, as at least part of the facility was under construction prior to August 2, 2001. The permittee has organic HAP emissions standard based on a 12-month rolling average, and, therefore, must begin collecting data on the compliance date in order to demonstrate compliance.

If the facility subsequently increases its actual organic HAP emissions to 100 tpy or more then the facility must comply with the standards in 40 CFR 63.5805(d) within 3 years of the date the semi-annual compliance report indicates that the facility meets or exceeds the 100 tpy threshold, subject to the provisions of 40 CFR 63.5805(e) and 63.5805(f)

40 CFR 63.5805(a), (a)(1), and (a)(2) of (a) do not apply to the facility because it does not have any centrifugal casting or continuous casting/lamination operations. 40 CFR 63.5805(b) does not apply because the facility is not an existing facility.

40 CFR 63.5805(d)(1) applies if the facility emits 100s tpy or more of HAP from the combination of all open molding, centrifugal casting, continuous lamination/casting, pultrusion, SMC manufacturing, mixing, and BMC manufacturing. 40 CFR 63.5805(d)(1) requires that the facility reduce the total organic HAP emissions from these operations by at least 95 percent by weight and meet any applicable work practice standards in Table 4 of the subpart that applies to it. (See list of applicable work practices listed below). As an alternative to meeting 95 percent by weight, the facility may meet the applicable organic HAP emissions limits in Table 5 to this subpart. The following operations occur at the facility which have emission limits in Tables 5:

- open molding non-CR/HS operations that use manual resin application,
- open molding tooling operations that use manual resin application
- open molding low flame spread/low-smoke product operations that use manual resin application
- open molding shrinkage controlled resins operations that use manual resin application
- open mold gel coat operations that use tooling gel coating
- open mold gel coat operations that use white/off white pigmented gel coating
- open mold gel coat operations that use all other pigmented gel coating

40 CFR 63.5805(d)(2) does not apply because the facility does not manufacture large reinforced plastic composite parts.

40 CFR 63.5805(c) applies to the facility. The facility is a new facility that currently has actual emissions less than 100 tpy of HAP and, therefore, is required under 40 CFR 63.3805(c) to meet the applicable organic HAP emissions limits in Table 3 and work practice standards in Table 4. In addition, the facility is subject to 40 CFR 63.3805(e), which requires a facility subject to paragraph (c) that subsequently meets or exceeds the 100 tpy threshold to notify the permitting authority in its compliance report. Paragraph (e) also allows request of a one-time exemption for exceedance of the 100 tpy threshold so long as certain conditions are met.

The facility is allowed to use actual emissions to determine whether the facility's HAP emissions are below the 100 tpy threshold. See Frequently Asked Questions About the Reinforced Plastic Composites Production NESHAP, May 16, 2006, Q.6.3. See also, 40 CFR Subpart WWWW, Table 2 (exceeding 100 tpy threshold is based on "actual organic HAP emissions").

All work practice in Tables 4 apply except 1, 4, 5, and 9. The following operations occur at the facility which have emission limits in Tables 3:

- open molding non-CR/HS operations that use manual resin application,
- open molding tooling operations that use manual resin application
- open molding low flame spread/low-smoke product operations that use manual resin application
- open molding shrinkage controlled resins operations that use manual resin application
- open mold gel coat operations that use tooling gel coating
- open mold gel coat operations that use white/off white pigmented gel coating
- open mold gel coat operations that use all other pigmented gel coating

40 CFR 63.5810	What are my options for meeting the standards for open
	molding and centrifugal casting operations at new and existing
	sources?

The facility must use one of the methods in 40 CFR 63.5810 paragraphs (a) through (d) to meet the standards for open molding in Table 3 of this subpart.

Paragraphs (a) through (d) of this section do not apply to the facility because the facility has open molding operations, and is not subject to the standards continuous lamination/casting operations.

40 CFR 63.5830 and paragraphs (a) through (d) of the section do not apply to the facility because the facility has open molding operations, and is not subject to the standards for pultrusion operations subject to the 60 weight percent organic HAP emissions reductions requirement.

40 CFR 63.5835 ......What are my general requirements for complying with this subpart?

Paragraph (a) of this section applies to the facility and requires the facility to be in compliance at all times with the work practice standards in Table 4 and the organic HAP emissions limits in Table 3. Paragraph (b) of this section does not because the facility does not use add-on controls. Paragraphs (c) and (d) of 40 CFR 63.5835 generally apply to all facilities subject to 40 CFR 63, Subpart WWWW.

40 CFR 63.5840 ......By what date must I conduct a performance test or other initial compliance demonstration?

The facility must comply with the data collection and compliance demonstration requirements of this paragraph by the compliance date specified by 40 CFR 63.5800. Because the facility is an open molding operation that elected to meet a organic HAP emissions limit on a 12-month rolling average, the facility must initiate collection of the required data on the compliance date, and demonstrate compliance 1 year after the compliance date.

40 CFR 63.5845 ......When must I conduct subsequent performance tests?

This section does not apply to the permittee because it does not operate an add-on control device to meet a standard.

This section does not apply to the permittee because these requirements apply to facilities that operate an add-on control device to meet a standard.

This section does not apply to the permittee because these requirements apply to facilities that operate an add-on control device to meet a standard.

40 CFR 63.5860 ...... How do I demonstrate initial compliance with the standards?

Paragraph (a) of this section applies to the facility and requires the facility demonstrate initial compliance with each applicable organic HAP emissions standard in 40 CFR 63.5805 paragraphs (a) through (h) by using the procedures shown in Tables 8 and 9 of this subpart . Specifically, only item 1 of Table 8 applies, and items 2, 3, and 8 of Table 9 apply. Paragraph (b) of this section does not apply to the permittee because these requirements apply to facilities that operate an add-on control device to meet a standard.

This section does not apply to the permittee because these requirements apply to facilities that have continuous lamination/casting operations. The facility has open molding operations.

Paragraph (a) of this section does not apply to the permittee because this requirement applies to facilities that operate an add-on control device to meet a standard. Paragraphs (b), (b)(1) through (b)(3), (c) and (d) of this section apply. Paragraph (e) of this section does not apply to the permittee because this requirement applies to facilities that operate pultrusion machines.

Paragraph (a)(1) and (d) of this section do not apply to the permittee because these requirements apply to facilities that operate an add-on control device to meet a standard. Paragraphs (a)(2) through (a)(4), (b), (c) and (e) of this section apply.

Paragraphs (a) and (b) of this section apply. Although the facility is a new source, because at least part of the facility was under construction prior to August 2, 2001, the facility is subject to the initial notification requirements for existing sources under Table 13.

40 CFR 63.5910 ...... What reports must I submit and when?

Paragraphs (a), (b), (b)(1) through (b)(5), (c), (c)(1) through (c)(5), (h), (i) and (g) of this section apply. Paragraphs (c)(6), (e), and (e)(1) through (e)(12) do not apply because the facility does not operate a continuous monitoring system. Paragraph (f) does not apply because 40 CFR 63.5805(a)(1) and (d).

40 CFR 63.5915 ......What records must I keep?

Paragraphs (a), (a)(1) through (3), (c), and (d) of this section apply. Paragraphs (b) of this section does not apply to the permittee because this requirement applies to facilities that operate an add-on control device, which the permittee does not. Paragraphs (e)(1) through (4) of this section do not apply because the facility does not have new or existing continuous lamination/ casting operations.

40 CFR 63.5920 ......In what form and how long must I keep my records?

Paragraphs (a) through (d) of this section apply.

40 CFR 63.5925 ......What parts of the General Provisions apply to me?

This section and Table 15 of Subpart WWWW, applies to this facility as specified.

This section does not apply to the facility

The definitions of this section apply to the facility.

#### 5.5 Permit Conditions Review

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permit action. All other permit conditions remain unchanged.

Permit Conditions 2.1 and 2.2 have been revised to state that the spray booths exhaust from Stacks EF-1, EF-2, and EF-3, and that the filters rated efficiency only pertains to the control of PM<sub>10</sub>. Permit Conditions 2.1 and 2.2 formerly stated that the spray booths exhausted from Stack EF-1.

Compliance with visible emission requirements of Permit Condition 2.5 shall be demonstrated through Permit Conditions 2.8, 2.9, 2.14, 2.16, 2.17, and 2.19.

Compliance with the fugitive emissions requirements of Permit Condition 2.6 shall be demonstrated through Permit Conditions 2.10, 2.14, 2.18, and 2.19.

Compliance with the odor requirements of Permit Condition 2.7 shall be demonstrated through Permit Conditions 2.15, and 2. 19.

Permit Condition 2.3 has been revised to include the emission limits formerly contained in Appendix A of the PTC No. P-000719, issued May 17,2002. Appendix A now contains the requirements formerly in Appendix B of PTC No. P-000719, issued May 17,2002. TAP emission limits have been removed from Permit Condition 2.3 in accordance with IDAPA 58.01.01.210.20. The permit conditions pertaining to the monitoring and recordkeeping requirements of former Permit Conditions 2.32, 2.37, 2.40, and 2.57 used to demonstrate compliance with the TAP emission limits of Permit Condition 2.3 have also been removed, in accordance with IDAPA 58.01.01.210.20.

Compliance with the VOC emission limits of Permit Condition 2.3 shall be demonstrated through Permit Conditions 2.9, 2.12, 2.13, 2.20. Permit Condition 2.20 has been revised by removing permit conditions pertaining to deleted Permit Conditions 2.32, 2.37, 2.40, and 2.57.

Compliance with the MACT requirements of Permit Condition 2.4 shall be demonstrated through compliance demonstration requirements of Permit Conditions 2.11, and the notification and reporting requirements of Permit Condition 2.24.

# 6. PERMIT FEES

A PTC processing fee for this permit revision does not apply.

# 7. PERMIT REVIEW

# 7.1 Regional Review of Draft Permit

A draft copy of the permit and statement of basis was provided to the Boise Regional Office on XX, 2007. No comments were received.

#### 7.2 Public Comment

A public comment period shall be conducted in accordance with IDAPA 58.01.01.209.01.c and 209.04 Rules for the Control of Air Pollution in Idaho.

#### 8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommends that Fiberglass Systems be issued a draft PTC No. P-060059.

AC/bf Permit No. P-050035

 $G: \label{lem:conditionary} Source \\ SS\ Ltd \\ PTC \\ Fiberglass\ Systems-Kuna \\ Appeal \\ P-050035\ Final\ SB. docodorder \\ Description \\ Des$ 

# Appendix A AIRS Information P-050035

# AIRS/AFS<sup>a</sup> FACILITY-WIDE CLASSIFICATION<sup>b</sup> DATA ENTRY FORM

Facility Name: FIBERGLASS SYSTEMS INC.
Facility Location: KUNA, ID

AIRS Number: 001-00179

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO <sub>2</sub>	В							
NO <sub>x</sub>	В							
СО	В							
PM <sub>10</sub>	В							
PT (Particulate)	В							
voc	А						А	
THAP (Total HAPs)	Α				А		А	
			APPLICABLE SUBPART					
					wwww			

<sup>&</sup>lt;sup>a</sup> Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

# b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).